

DETAILED ESTIMATE

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- Improvements to Roads and Drains at Thindlu and Kodigehalli Surrounding Areas in Ward No. 19 Kodigehalli

Estimation Cost.Rs 10000000.00

Description of work		Mesurement				Qty	Rate	Amount
	Unit	No.	L	B	D			
KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 & 136 ,I No-19.1&17.4& 17.1) 5km lead= 57+2.0x1.28x5 =69.80								
For New Drain								
Bank Colony								
Main Road	Cum	2	110.00	1.10	1.05	254.10		
For Culvert								
Bank Colony								
Main Road	Cum	1	5.30	1.40	0.95	7.05		
	Cum	1	5.00	1.40	0.95	6.65		
	Cum	1	4.60	1.40	0.95	6.12		
Drain Desilt	Cum							
VMS Layout								
1st Main Road	Cum	2	69.00	0.45	0.50	31.05		
2nd Cross Road	Cum	2	34.00	0.45	0.50	15.30		
1st Cross Road	Cum	2	116.00	0.45	0.50	52.20		
Bank Colony								
1st Cross Road	Cum	2	114.00	0.45	0.45	46.17		
2nd Cross Road	Cum	2	44.00	0.45	0.45	17.82		
2nd cross Road	Cum	2	77.00	0.45	0.45	31.19		
Hanuman Badavane								
3rd Cross Road	Cum	2	37.00	0.45	0.45	14.99		
4th Cross Road	Cum	2	35.00	0.45	0.45	14.18		
5th Cross Road	Cum	2	34.00	0.45	0.45	13.77		
6th Cross Road	Cum	2	31.00	0.45	0.45	12.56		
Buddha Jyothi Layout								
Main Road	Cum	2	75.00	0.45	0.45	30.38		
1st Cross Road	Cum	2	95.00	0.45	0.45	38.48		
1st CrossRoad -1st Cross Road	Cum	2	34.00	0.45	0.45	13.77		
1st Cross Road- 2nd Cross	Cum	2	29.00	0.45	0.45	11.75		
1st Cross Road-3rd Cross	Cum	2	26.00	0.45	0.45	10.53		
1st Cross Road- 4th Cross	Cum	2	33.00	0.45	0.45	13.37		
Road Overburden	Cum							
Bank Colony								
Main Road	Cum	1	10.00	0.60	0.30	1.80		
Flagging coarse PCC								
Bank Colony								
1st Cross Road	Cum	2	114.00	0.20	0.10	4.56		

Description of work	Unit	Measurement				Qty	Rate	Amount
		No.	L	B	D			
2nd Cross Road	Cum	2	44.00	0.20	0.10	1.76		
Basic rate	130.00							
Area weightage 6%	7.80							
5Km lead & Lift= 57+(2*1.28*5)	69.80							
Sub Total	207.60							
Total						649.51	207.60	134838.00
Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No-27,I No-5.33)								
BS slab of Drain								
Open Drain (Sides & Bottom)	Sqm	Width=Perimeter of Drain in U Shape						
Bank Colony								
1st Cross Road	Sqm	2	114.00	1.35		307.80		
2nd Cross Road	Sqm	2	44.00	1.35		118.80		
2nd cross Road	Sqm	2	77.00	1.35		207.90		
Hanuman Badavane								
3rd Cross Road	Sqm	2	37.00	1.35		99.90		
4th Cross Road	Sqm	2	35.00	1.35		94.50		
5th Cross Road	Sqm	2	34.00	1.35		91.80		
6th Cross Road	Sqm	2	31.00	1.35		83.70		
Buddha Jyothi Layout								
Main Road	Sqm	2	75.00	1.35		202.50		
1st Cross Road	Sqm	2	95.00	1.35		256.50		
1st CrossRoad -1st Cross Road	Sqm	2	34.00	1.35		91.80		
1st Cross Road- 2nd Cross	Sqm	2	29.00	1.35		78.30		
1st Cross Road-3rd Cross	Sqm	2	26.00	1.35		70.20		
1st Cross Road- 4th Cross	Sqm	2	33.00	1.35		89.10		
					Total	1792.80		
Deduct 20% for Missing/Damaged						358.56		
Consider 80% Qnty for Removing & Refixing						1434.24		
BS Drain Cover Slab	Sqm							
VMS Layout								
1st Main Road	Sqm	2	69.00	0.90		124.20		
2nd Cross Road	Sqm	2	34.00	0.75		51.00		
1st Cross Road	Sqm	2	116.00	0.75		174.00		
Hanuman Badavane								
3rd Cross Road	Sqm	2	37.00	0.90		66.60		
5th Cross Road	Sqm	2	34.00	0.90		61.20		

S.No	Description of work	Measurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
	Buddha Jyothi Layout								
	1st Cross Road	Sqm	2	95.00	0.90		171.00		
						Total	648.00		
	Deduct 20% for Missing/Damaged						129.60		
	Consider 80% Qty for Removing & Refixing						518.40		
	Basic rate	105.00							
	Area weightage 6%	6.3							
	Sub Total	111.30							
	Total						1952.64	111.30	217329.00
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing etc., complete.(P.No.27,I.No.5.31.1)								
	Provide20% new BS Slab for Missing/Damaged	Sqm		From item no.2			358.56		
	Basic rate	700.00							
	Area weightage 6%	42							
	Sub Total	742.00							
	Total						358.56	742.00	266052.00
4	Providing granite slabs of selected quality roughly dressed havinf a size of 10 cms thick and fixed in cement mortar (1:6) including fixing curing etc., complete.(P.No.27,I.No.5.31.2)								
	Provide20% new BS Slab for Missing/Damaged	Sqm		From item no.2			129.60		
	Basic rate	912.00							
	Area weightage 6%	54.72							
	Sub Total	966.72							
	Total						129.60	966.72	125287.00
5	KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.13, I.No. 4.3)								
	For New Drain								
	Bank Colony								
	Main Road	Cum	2	110.00	1.10	0.15	36.30		
	For Culvert								
	Bank Colony								
	Main Road	Cum	1	5.30	1.40	0.15	1.11		
		Cum	1	5.00	1.40	0.15	1.05		
		Cum	1	4.60	1.40	0.15	0.97		
	Basic rate	5475.28							
	Area weightage 6%	328.52							
	Sub Total	5803.80							
	Total						39.43	5803.80	228838.00

DETAILED ESTIMATE

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- Improvements to Roads and Drains at Lakkappa Layout and Hosabalu Nagara in Ward No.11, Kuvempunagara

Estimation Cost.Rs **10000000.00**

Sl No	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
1	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 & 136 ,I No-19.1& 17.4& 17.1) 5km lead= 57+2.0x1.28x5 =69.80								
	New Drain	Cum							
	Lakkappa Layout								
	5th Cross Road	Cum	2	203.00	1.10	0.90	401.94		
	Drain Desilt	Cum							
	Vardaraj Swamy Layout								
	1st Main Road								
	RHS	Cum	1	409.00	0.45	0.45	82.82		
	LHS	Cum	1	238.00	0.45	0.45	48.20		
	Basic rate	130.00							
	Area weightage 6%	7.80							
	5Km lead & Lift= 57+(2*1.28*5)	69.80							
	Sub Total	207.60							
	Total						532.96	207.60	110642.00
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No-27,I No-5.33)								
	BS slab of Drain								
	Open Drain (Sides & Bottom)	Sqm	Width=Perimeter of Drain in U Shape						
	Vardaraj Swamy Layout								
	1st Main Road								
	RHS	Sqm	1	409.00	1.35		552.15		
	LHS	Sqm	1	238.00	1.35		321.30		
						Total	873.45		
	Deduct 20% for Missing/Damaged						174.69		
	Consider 80% Qnty for Removing & Refixing						698.76		
	Basic rate	105.00							
	Area weightage 6%	6.3							
	Sub Total	111.30							
	Total						698.76	111.30	77772.00
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing etc., complete.(P.No.27,I.No.5.31.1)								
	Provide 20% new BS Slab for Missing/Damaged	Sqm	From item no.2				174.69		
	Basic rate	700.00							
	Area weightage 6%	42							
	Sub Total	742.00							
	Total						174.69	742.00	129620.00

Sl No	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
4	KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.13, I.No. 4.3)								
	For Drain								
	Lakkappa Layout								
	5th Cross Road	Cum	2	203.00	1.10	0.15	66.99		
	Basic rate	5475.28							
	Area weightage 6%	328.52							
	Sub Total	5803.80							
	Total						66.99	5803.80	388797.00
5	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs. With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering, cost of materials, HOM of Machinery, Curing Etc., Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm (Item No 37.59.2 page no 271)								
	Drain								
	Bottom Raft	Cum							
	Lakkappa Layout								
	5th Cross Road	Cum	2	203.00	0.90	0.15	54.81		
	Side Wall								
	Lakkappa Layout								
	5th Cross Road	Cum	4	203.00	0.15	0.60	73.08		
	Sub Total						127.89		
	Basic rate	7292.14							
	Area weightage 6%	437.53							
	Sub Total	7729.67							
	Total						127.89	7729.67	988548.00
6	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2								
	For Drain	Cum		From Item No.05			127.89		
		kg		Steel assumed 60Kg/Cum of Concrete			7673.40		
		tonne					7.67		
	Basic rate	85468							
	Area weightage 6%	5128.08							
	Sub Total	90596.08							
	Total						7.67	90596.08	695180.00
7	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	New Drain Cover slab								
	Lakkappa Layout								
	5th Cross Road	Sqm	2	203.00	0.90		365.40		
	Data rate	1922.00							
	Total						365.40	1922.00	702299.00

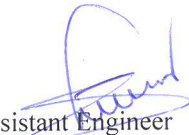
Sl No	Description of work		Mesurement				Qty	Rate	Amount
		Unit	No.	L	B	D			
8	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Chapter 3(P.No.146, I.No.19.56)								
	Lakkappa Layout	Sqm							
	5th Cross Road	Sqm	1	203.00	6.50		1319.50		
	Vardaraj Swamy Layout								
	1st Main Road	Sqm	1	470.00	6.40		3008.00		
	Basic rate	39.00							
	Area weightage 6%	2.34							
	Sub Total	41.34							
	Total						4327.50	41.34	178899.00
9	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.(I No-19.64,P No-147)								
	for New Road	Sqm							
	Lakkappa Layout								
	5th Cross Road	Sqm	1	203.00	6.50		1319.50		
	Vardaraj Swamy Layout								
	1st Main Road	Sqm	1	470.00	6.40		3008.00		
	Basic rate	6.00							
	Area weightage 6%	0.36							
	Sub Total	6.36							
	Total						4327.50	6.36	27523.00
10	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	For New Road	Cum							
	Lakkappa Layout								
	5th Cross Road	Cum	1	203.00	6.50	0.23	303.49		
	Vardaraj Swamy Layout								
	1st Main Road	Cum	1	470.00	6.40	0.23	691.84		
	Basic rate	1888.00							
	Area weightage 6%	113.28							
	Sub Total	2001.28							
	Total						995.33	2001.28	1991925.00
11	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	New Road								
	Lakkappa Layout								
	5th Cross Road	Sqm	1	203.00	6.50		1319.50		
	Vardaraj Swamy Layout								
	1st Main Road	Sqm	1	470.00	6.40		3008.00		
	Basic rate	32.00							
	Area weightage 6%	1.92							
	Sub Total	33.92							
	Total						4327.50	33.92	146789.00

Sl No	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
12	KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by smooth wheeled, vibratory & tandem rollers to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.4 % VG-30 Bitumen(P.No.159,I.No.21.11.6).								
	New Road								
	Lakkappa Layout								
	5th Cross Road	Cum	1	203.00	6.50	0.05	65.98		
	Vardaraj Swamy Layout								
	1st Main Road	Cum	1	470.00	6.40	0.05	150.40		
	Basic rate	6384.00							
	Area weightage 6%	383.04							
	Sub Total	6767.04							
	Total						216.38	6767.04	1464219.00
13	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	Lakkappa Layout	Sqm							
	5th Cross Road	Sqm	1	203.00	6.50		1319.50		
	Vardaraj Swamy Layout								
	1st Main Road	Sqm	1	470.00	6.40		3008.00		
	Basic rate	12.00							
	Area weightage 6%	0.72							
	Sub Total	12.72							
	Total						4327.50	12.72	55046.00
14	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4% VG-30 Bitumen(P.No-162,I No-21.22.6)								
	Lakkappa Layout	Cum							
	5th Cross Road	Cum	1	203.00	6.50	0.04	52.78		
	Vardaraj Swamy Layout								
	1st Main Road	Cum	1	470.00	6.40	0.04	120.32		
	Basic rate	9435.00							
	Area weightage 6%	566.10							
	Sub Total	10001.10							
	Total						173.10	10001.10	1731191.00
15	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Lakkappa Layout	Sqm							
	5th Cross Road	Sqm	2	203.00	0.10		40.60		

Sl No	Description of work	Measurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
	Vardaraj Swamy Layout								
	1st Main Road	Sqm	2	470.00	0.10		94.00		
	Basic rate	429.00							
	Area weightage 6%	25.74							
	Sub Total	454.74							
	Total						134.60	454.74	61209.00
Grand Total									8749659.00
GST Charges (12% of estimated cost)									1049960.00
DPR Charges (1% of estimated cost)									100000.00
Project management And Consultancy Charges(1% of estimated cost)									100000.00
Miscellaneous and rounding									381.00
Total Amount									10000000.00
RUPEES ONE CRORE ONLY									

CERTIFICATE:

- 1) The work spot has been inspected and found to be necessary
- 2) The work spot comes under B.B.M.P
- 3) The provisions made in the estimate are necessary and minimum
- 4) The estimate is based on C.S.R of 2018-2019, Issue rates and Data Rates.


Assistant Engineer
BBMP

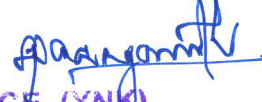

Assistant Executive Engineer
BBMP
Vidyaranyapura Sub Division
BBMP, Bangalore - 07


Executive Engineer
BBMP



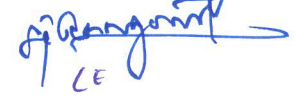
Administrative Approval

Accorded For Rs 100.00 lakhs only
Head of A/C.....
CER NO : 49 Dt: 22.10.2021


TA

CE (YNK)

Technical Sanction

Accorded For Rs 100.00 lakhs
Head of A/C.....
CER NO : 60 Dt: 22.10.2021


TA

CE

S.No	Description of work	Mesurement				Qty	Rate	Amount
		Unit	No.	L	B			
6	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs. With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering, cost of materials, HOM of Machinery, Curing Etc., Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm(Item No 37.59.2 page no 271)							
	Drain							
	Bottom Raft	Cum						
	Bank Colony							
	Main Road	Cum	2	110.00	0.90	0.15	29.70	
	Side Wall							
	Bank Colony							
	Main Road	Cum	4	110.00	0.15	0.75	49.50	
						Sub Total	79.20	
	Culvert							
	Bottom Raft							
	Bank Colony							
	Main Road	Cum	1	5.30	1.20	0.20	1.27	
		Cum	1	5.00	1.20	0.20	1.20	
		Cum	1	4.60	1.20	0.20	1.10	
	Side Wall							
	Bank Colony							
	Main Road	Cum	2	5.30	0.20	0.60	1.27	
		Cum	2	5.00	0.20	0.60	1.20	
		Cum	2	4.60	0.20	0.60	1.10	
						Sub Total	7.15	
	Basic rate	7292.14						
	Area weightage 6%	437.53						
	Sub Total	7729.67						
						86.35	7729.67	667473.00
	Total							
7	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2							
	For Drain	Cum	From Item No.06			79.20		
		kg	Steel assumed 60Kg/Cum of Concrete			4752.00		
		tonne				4.75		
	For Culvert	Cum	From Item No.06			7.15		
		kg	Steel assumed 90 Kg/Cum of Concrete			643.68		
		tonne				0.64		
	Basic rate	85468						
	Area weightage 6%	5128.08						
	Sub Total	90596.08						
	Total					5.40	90596.08	488828.00

S.No	Description of work	Measurement				Qty	Rate	Amount
		Unit	No.	L	B			
1	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of all materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,complete. (Data Rate)							
	For New Drain							
	Bank Colony							
	Main Road	Sqm	2	110.00	0.90	198.00		
	Flagging Course							
	Cover Slab							
	Bank Colony							
	1st Cross Road	Sqm	2	114.00	0.75	171.00		
	2nd Cross Road	Sqm	2	44.00	0.75	66.00		
	Data rate	1922.00						
	Total					435.00	1922.00	836070.00
2	Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of all materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge(Data Rate)							
	Culver cover Slab	Sqm						
	Bank Colony							
	Main Road	Sqm	1	5.30	1.20	6.36		
		Sqm	1	5.00	1.20	6.00		
		Sqm	1	4.60	1.20	5.52		
	Data rate	5418.00						
	Total					17.88	5418.00	96874.00
10	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No-13,I No-4.6)							
	Flagging coarse PCC							
	Bank Colony							
	1st Cross Road	Cum	2	114.00	0.20	0.10	4.56	
	2nd Cross Road	Cum	2	44.00	0.20	0.10	1.76	
	Flagging coarse							
	Coping							
	Bank Colony							
	1st Cross Road	Cum	4	114.00	0.20	0.10	9.12	
	2nd Cross Road	Cum	4	44.00	0.20	0.10	3.52	
	Basic rate	5919.71						
	Area weightage 6%	355.18						
	Sub Total	6274.89						
	Total					18.96	6274.89	118972.00
11	KSRB 5-14.1 : Providing and constructing load bearing wall with solid concrete blocks having block density not less than 1800kg/m3 having a minimum average compressive strength of 4.00 N/mm2 confirming to IS 2185 (Part 1):2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of all materials labour charges, scaffolding, curing, hire charges of machineries etc., complete as per specifications. KBS No.5.4. (P.No-27,I No-5.26.2) solid concrete blocks of size 400x150x200mm							
	Flagging coarse	Sqm						
	Bank Colony							
	1st Cross Road	Sqm	12	114.00	0.20	273.60		

S No	Description of work	Measurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
	2nd Cross Road	Sqm	12	44.00		0.20	105.60		
	Basic rate	924.00							
	Area weightage 6%	55.44							
	Sub Total	979.44							
	Total						379.20	979.44	371404.00
12	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specification MORTH Specification No.301 Loading and unloading with 5km lead= (I No-19.14,P No-143)								
	UGD Cut Portion	Cum							
	Bank Colony								
	1st Cross Road	Cum	4	5.00	4.30	0.23	19.78		
	2nd Cross Road	Cum	3	6.00	4.20	0.23	17.39		
	2nd cross Road	Cum	3	4.00	4.00	0.23	11.04		
	New Road								
	Bank Colony								
	Main Road	Cum	1	44.00	5.60	0.15	36.96		
	Basic rate	41.00							
	Area weightage 6%	2.46							
	5Km lead= (2*1.28*5)	12.80							
	Sub Total	56.26							
	Total						85.17	56.26	4792.00
13	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Chapter 3(P.No.146, I.No.19.56)								
	VMS Layout	Sqm							
	1st Main Road	Sqm	1	69.00	5.60		386.40		
	2nd Cross Road	Sqm	1	34.00	4.00		136.00		
	1st Cross Road	Sqm	1	116.00	4.00		464.00		
	Bank Colony								
	Main Road	Sqm	1	65.00	5.60		364.00		
	Hanuman Badavane								
	3rd Cross Road	Sqm	1	37.00	3.00		111.00		
	4th Cross Road	Sqm	1	35.00	3.50		122.50		
	5th Cross Road	Sqm	1	34.00	3.60		122.40		
	6th Cross Road	Sqm	1	31.00	4.00		124.00		
	Buddha Jyothi Layout								
	Main Road	Sqm	1	75.00	4.60		345.00		
	1st Cross Road	Sqm	1	95.00	4.20		399.00		
	1st Cross Road -1st Cross Road	Sqm	1	34.00	4.20		142.80		
	1st Cross Road- 2nd Cross	Sqm	1	29.00	4.20		121.80		
	1st Cross Road-3rd Cross	Sqm	1	26.00	4.50		117.00		
	1st Cross Road- 4th Cross	Sqm	1	33.00	4.70		155.10		
	Basic rate	39.00							
	Area weightage 6%	2.34							
	Sub Total	41.34							
	Total						3111.00	41.34	128609.00

Sl No	Description of work	Measurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
14	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occurring during rolling including cost of all labour, HOM complete as per specifications.(I No-19.64,P No-147)								
	for New Road	Sqm							
	VMS Layout								
	1st Main Road	Sqm	1	69.00	5.60		386.40		
	2nd Cross Road	Sqm	1	34.00	4.00		136.00		
	1st Cross Road	Sqm	1	116.00	4.00		464.00		
	Bank Colony								
	Main Road	Sqm	1	110.00	5.60		616.00		
	Hanuman Badavane								
	3rd Cross Road	Sqm	1	37.00	3.00		111.00		
	4th Cross Road	Sqm	1	35.00	3.50		122.50		
	5th Cross Road	Sqm	1	34.00	3.60		122.40		
	6th Cross Road	Sqm	1	31.00	4.00		124.00		
	Buddha Jyothi Layout								
	Main Road	Sqm	1	75.00	4.60		345.00		
	1st Cross Road	Sqm	1	95.00	4.20		399.00		
	1st CrossRoad -1st Cross Road	Sqm	1	34.00	4.20		142.80		
	1st Cross Road- 2nd Cross	Sqm	1	29.00	4.20		121.80		
	1st Cross Road-3rd Cross	Sqm	1	26.00	4.50		117.00		
	1st Cross Road- 4th Cross	Sqm	1	33.00	4.70		155.10		
	Basic rate	6.00							
	Area weightage 6%	0.36							
	Sub Total	6.36							
	Total						3363.00	6.36	21389.00
15	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	For new Road								
	Bank Colony								
	Main Road	Cum	1	44.00	5.60	0.15	36.96		
	Basic rate	1882.00							
	Area weightage 6%	112.92							
	Sub Total	1994.92							
	Total						36.96	1994.92	73733.00
16	KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	For New Road	Cum							
	VMS Layout								
	1st Main Road	Cum	1	69.00	5.60	0.23	88.87		
	2nd Cross Road	Cum	1	34.00	4.00	0.23	31.28		
	1st Cross Road	Cum	1	116.00	4.00	0.23	106.72		
	Bank Colony								
	Main Road	Cum	1	110.00	5.60	0.23	141.68		

Description of work	Unit	Measurement				Qty	Rate	Amount
		No.	L	B	D			
Hanuman Badavane								
3rd Cross Road	Cum	1	37.00	3.00	0.23	25.53		
4th Cross Road	Cum	1	35.00	3.50	0.23	28.18		
5th Cross Road	Cum	1	34.00	3.60	0.23	28.15		
6th Cross Road	Cum	1	31.00	4.00	0.23	28.52		
Buddha Jyothi Layout								
1st Cross Road	Cum	1	95.00	4.20	0.23	91.77		
1st CrossRoad -1st Cross Road	Cum	1	34.00	4.20	0.23	32.84		
1st Cross Road- 2nd Cross	Cum	1	29.00	4.20	0.23	28.01		
1st Cross Road-3rd Cross	Cum	1	26.00	4.50	0.23	26.91		
1st Cross Road- 4th Cross	Cum	1	33.00	4.70	0.23	35.67		
Buddha Jyothi Layout								
Main Road	Cum	1	75	4.60	0.23	79.35		
For Cut Portion Bank Colony								
1st Cross Road	Cum	4	5.00	4.30	0.23	19.78		
2nd Cross Road	Cum	3	6.00	4.20	0.23	17.39		
2nd cross Road	Cum	3	4.00	4.00	0.23	11.04		
Basic rate	1888.00							
Area weightage 6%	113.28							
Sub Total	2001.28							
Total						821.70	2001.28	1644448.00

KSRRB M500-6. Providing and applying **primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)

Provide 15% Profile Correction for old Road	Sqm	From Item No.19				166.19		
New Road								
VMS Layout								
1st Main Road	Sqm	1	69.00	5.60		386.40		
2nd Cross Road	Sqm	1	34.00	4.00		136.00		
1st Cross Road	Sqm	1	116.00	4.00		464.00		
Bank Colony								
Main Road	Sqm	1	110.00	5.60		616.00		
Hanuman Badavane								
3rd Cross Road	Sqm	1	37.00	3.00		111.00		
4th Cross Road	Sqm	1	35.00	3.50		122.50		
5th Cross Road	Sqm	1	34.00	3.60		122.40		
6th Cross Road	Sqm	1	31.00	4.00		124.00		
Buddha Jyothi Layout								
1st Cross Road	Sqm	1	95.00	4.20		399.00		
1st CrossRoad -1st Cross Road	Sqm	1	34.00	4.20		142.80		
1st Cross Road- 2nd Cross	Sqm	1	29.00	4.20		121.80		

Sl No	Description of work	Measurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
	1st Cross Road-3rd Cross	Sqm	1	26.00	4.50		117.00		
	1st Cross Road- 4th Cross	Sqm	1	33.00	4.70		155.10		
	For Cut Portion								
	Buddha Jyothi Layout								
	Main Road	Sqm	1	75.00	4.60		345.00		
	Bank Colony								
	1st Cross Road	Sqm	4	5.00	4.30		86.00		
	2nd Cross Road	Sqm	3	6.00	4.20		75.60		
	2nd cross Road	Sqm	3	4.00	4.00		48.00		
	Basic rate	32.00							
	Area weightage 6%	1.92							
	Sub Total	33.92							
	Total						3738.79	33.92	126820.00

- 18 KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by smooth wheeled, vibratory & tandem rollers to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.4 % VG-30 Bitumen(P.No.159,I.No.21.11.6).

Provide 15% Profile Correction for old Road	Sqm	From Item No.19					1107.90		
	Cum		166.19		0.05		8.31		
Road Cut Portion									
Bank Colony									
1st Cross Road	Cum	4	5.00	4.30	0.05		4.30		
2nd Cross Road	Cum	3	6.00	4.20	0.05		3.78		
2nd cross Road	Cum	3	4.00	4.00	0.05		2.40		
For Scarified Portion									
Buddha Jyothi Layout									
Main Road	Cum	1	75.00	4.60	0.05		17.25		
New Road									
VMS Layout									
1st Main Road	Cum	1	69.00	5.60	0.05		19.32		
2nd Cross Road	Cum	1	34.00	4.00	0.05		6.80		
1st Cross Road	Cum	1	116.00	4.00	0.05		23.20		
Bank Colony									
Main Road	Cum	1	110.00	5.60	0.05		30.80		
Hanuman Badavane									
3rd Cross Road	Cum	1	37.00	3.00	0.05		5.55		
4th Cross Road	Cum	1	35.00	3.50	0.05		6.13		
5th Cross Road	Cum	1	34.00	3.60	0.05		6.12		
6th Cross Road	Cum	1	31.00	4.00	0.05		6.20		

Sl No	Description of work	Measurement				Qty	Rate	Amount
		Unit	No.	L	B	D		
	Buddha Jyothi Layout							
	1st Cross Road	Cum	1	95.00	4.20	0.05	19.95	
	1st Cross Road - 1st Cross Road	Cum	1	34.00	4.20	0.05	7.14	
	1st Cross Road- 2nd Cross	Cum	1	29.00	4.20	0.05	6.09	
	1st Cross Road-3rd Cross	Cum	1	26.00	4.50	0.05	5.85	
	1st Cross Road- 4th Cross	Cum	1	33.00	4.70	0.05	7.76	
	Basic rate	6384.00						
	Area weightage 6%	383.04						
	Sub Total	6767.04						
	Total					186.94	6767.04	1265026.00
19	KSRRB 500-2.Cleaning the existing black topped surface with brooms,soft brushes and finally dusting with old gunny bags and/or compressed air to receive bituminous treatment including cost of all materials,labhour, HOM of machineries complete as per specifications.(P.No.158,I.No.21.2).							
	Bank Colony							
	1st Cross Road	Sqm	1	114.00	5.00		570.00	
	2nd Cross Road	Sqm	1	44.00	4.70		206.80	
	2nd cross Road	Sqm	1	77.00	4.30		331.10	
	Basic rate	5.00						
	Area weightage 6%	0.3						
	Sub Total	5.30						
	Total					1107.90	5.30	5872.00
20	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)							
	VMS Layout	Sqm						
	1st Main Road	Sqm	1	69.00	5.60		386.40	
	2nd Cross Road	Sqm	1	34.00	4.00		136.00	
	1st Cross Road	Sqm	1	116.00	4.00		464.00	
	Bank Colony							
	Main Road	Sqm	1	110.00	5.60		616.00	
	1st Cross Road	Sqm	1	114.00	5.00		570.00	
	2nd Cross Road	Sqm	1	44.00	4.70		206.80	
	2nd cross Road	Sqm	1	77.00	4.30		331.10	
	Hanuman Badavane							
	3rd Cross Road	Sqm	1	37.00	3.00		111.00	
	4th Cross Road	Sqm	1	35.00	3.50		122.50	
	5th Cross Road	Sqm	1	34.00	3.60		122.40	
	6th Cross Road	Sqm	1	31.00	4.00		124.00	
	Buddha Jyothi Layout							
	Main Road	Sqm	1	75.00	4.60		345.00	
	1st Cross Road	Sqm	1	95.00	4.20		399.00	
	1st Cross Road - 1st Cross Road	Sqm	1	34.00	4.20		142.80	
	1st Cross Road- 2nd Cross	Sqm	1	29.00	4.20		121.80	

Sl No	Description of work	Mesurement				Qty	Rate	Amount
		Unit	No.	L	B	D		
	1st Cross Road-3rd Cross	Sqm	1	26.00	4.50		117.00	
	1st Cross Road- 4th Cross	Sqm	1	33.00	4.70		155.10	
	Basic rate	12.00						
	Area weightage 6%	0.72						
	Sub Total	12.72						
	Total					4470.90	12.72	56870.00

- 21 KSRRB M500-19. Providing and laying **bituminous concrete** using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4% VG-30 Bitumen (P.No-162, I No-21.22.6)

VMS Layout	Cum							
1st Main Road	Cum	1	69.00	5.60	0.04	15.46		
2nd Cross Road	Cum	1	34.00	4.00	0.04	5.44		
1st Cross Road	Cum	1	116.00	4.00	0.04	18.56		
Bank Colony								
Main Road	Cum	1	110.00	5.60	0.04	24.64		
1st Cross Road	Cum	1	114.00	5.00	0.04	22.80		
2nd Cross Road	Cum	1	44.00	4.70	0.04	8.27		
2nd cross Road	Cum	1	77.00	4.30	0.04	13.24		
Hanuman Badavane								
3rd Cross Road	Cum	1	37.00	3.00	0.04	4.44		
4th Cross Road	Cum	1	35.00	3.50	0.04	4.90		
5th Cross Road	Cum	1	34.00	3.60	0.04	4.90		
6th Cross Road	Cum	1	31.00	4.00	0.04	4.96		
Buddha Jyothi Layout								
Main Road	Cum	1	75.00	4.60	0.04	13.80		
1st Cross Road	Cum	1	95.00	4.20	0.04	15.96		
1st Cross Road - 1st Cross Road	Cum	1	34.00	4.20	0.04	5.71		
1st Cross Road- 2nd Cross	Cum	1	29.00	4.20	0.04	4.87		
1st Cross Road-3rd Cross	Cum	1	26.00	4.50	0.04	4.68		
1st Cross Road- 4th Cross	Cum	1	33.00	4.70	0.04	6.20		
Basic rate	9435.00							
Area weightage 6%	566.10							
Sub Total	10001.10							
Total						178.84	10001.10	1788557.00

- 22 KSRRB M800-13. **Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182, I No-24.15)

VMS Layout	Sqm							
1st Main Road	Sqm	2	69.00	0.10		13.80		
2nd Cross Road	Sqm	2	34.00	0.10		6.80		
1st Cross Road	Sqm	2	116.00	0.10		23.20		

No	Description of work	Mesurement				Qty	Rate	Amount
		Unit	No.	L	B	D		
	Bank Colony							
	Main Road	Sqm	2	110.00	0.10		22.00	
	1st Cross Road	Sqm	2	114.00	0.10		22.80	
	2nd Cross Road	Sqm	2	44.00	0.10		8.80	
	2nd cross Road	Sqm	2	77.00	0.10		15.40	
	Hanuman Badavane							
	3rd Cross Road	Sqm	0.5	37.00	0.10		1.85	
	4th Cross Road	Sqm	0.5	35.00	0.10		1.75	
	5th Cross Road	Sqm	0.5	34.00	0.10		1.70	
	6th Cross Road	Sqm	0.5	31.00	0.10		1.55	
	Buddha Jyothi Layout							
	Main Road	Sqm	2	75.00	0.10		15.00	
	1st Cross Road	Sqm	2	95.00	0.10		19.00	
	1st CrossRoad -1st Cross Road	Sqm	2	34.00	0.10		6.80	
	1st Cross Road- 2nd Cross	Sqm	2	29.00	0.10		5.80	
	1st Cross Road-3rd Cross	Sqm	2	26.00	0.10		5.20	
	1st Cross Road- 4th Cross	Sqm	2	33.00	0.10		6.60	
	Basic rate	429.00						
	Area weightage 6%	25.74						
	Sub Total	454.74						
	Total					178.05	454.74	80967.00
Administrative Approval								Grand Total
								8749048.00
								GST Charges (12% of estimated cost)
								1049886.00
								DPR Charges (1% of estimated cost)
								100000.00
								Project management And Consultancy Charges(1% of estimated cost)
								100000.00
								Miscellenious and rounding
								1066.00
								Total Amount
								10000000.00
								RUPEES ONE CRORE ONLY

CERTIFICATE:

- 1) The work spot has been inspected and found to be necessary
- 2) The work spot comes under B.B.M.P
- 3) The provisions made in the estimate are necessary and minimum
- 4) The estimate is based on C.S.R of 2018-2019, Issue rates and Data Rates.

[Signature]
Assistant Engineer
BBMP

[Signature]
Assistant Executive Engineer
BBMP
Adyaranyapura Sub Division
BBMP, Bangalore - 97

[Signature]
Executive Engineer
BBMP



Technical Sanction
Accorded for Rs 100.00 lakhs.
Head of Dept
CER NO 58 DE. 22.10.21

[Signature]

[Signature]

Sl. NO	Specification No	Units	Rate Considered in 2018-19 SR from 10-10-2018 to 09-04-2019	Rate of per bag of Cement Considered in 2018-19 SR from 10-10-2018 to 09-04-2019	Rate of Cement wef 02-11-2021	Qty Of Cement used in (Kgs) per Cum of Concrete as per SR 2018-19 Specification	no of Bags of Cement used	Amount in Rs considering Rate per bag as per 2018-19 SR From 10-10-2018 to 09-04-2019 for No. of bags used in one Cum of Concrete	Amount in Rs. considering Rate per bag wef 02-11-2021 for No. of bags used in one Cum of Concrete	Rate Considered in 2018-19 SR wef 02-11-2021
			[1]	[2]	[3]	[4]	[5]=[4]/50	[6]=[5]x[2]	[7]=[5]x[3]	[8]=[1]-[6]+[7]
1	4.6	Cum	5422	245.31	349.00	240	4.8	1177.488	1675.2	5919.71
2	37.59.2	Cum	6670	245.31	349.00	300	6	1471.86	2094	7292.14
3	4.3	Cum	5102	245.31	349.00	180	3.6	883.116	1256.4	5475.28

[Handwritten Signature]



DETAILED ESTIMATE

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- Improvements to Roads and Drains at Simhadri Layout, New Sai Garden Layout and Surrounding in Ward No.11, Kuvempunagara

							Estimation Cost.Rs	10000000.00	
Sl No	Description of work		Mesurement				Qty	Rate	Amount
		Unit	No.	L	B	D			
1	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 & 136 ,I No-19.1&17.4& 17.1) 5km lead= $57+2.0 \times 1.28 \times 5 = 69.80$								
	New Drain	Cum							
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	2	150.00	0.95	0.90	256.50		
	1st Main 2nd Cross Road	Cum	2	132.00	0.95	0.90	225.72		
	New Culvert	Cum							
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	1	7.30	1.40	0.95	9.71		
	Drain Desilt	Cum							
	New Sai Garden								
	1st Cross Road	Cum	2	40.50	0.45	0.45	16.40		
	2nd Cross Road	Cum	2	46.00	0.45	0.45	18.63		
	3rd Cross Road	Cum	2	51.00	0.45	0.45	20.66		
	Basic rate	130.00							
	Area weightage 6%	7.80							
	5Km lead & Lift= $57+(2 \times 1.28 \times 5)$	69.80							
	Sub Total	207.60							
	Total						547.62	207.60	113686.00
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No-27,I No-5.33)								
	BS slab of Drain								
	Open Drain (Sides & Bottom)	Sqm	Width=Perimeter of Drain in U Shape						
	New Sai Garden								
	1st Cross Road	Sqm	2	40.50	1.35		109.35		
	2nd Cross Road	Sqm	2	46.00	1.35		124.20		
	3rd Cross Road	Sqm	2	51.00	1.35		137.70		
						Total	371.25		
	Deduct 20% for Missing/Damaged						74.25		
	Consider 80% Qnty for Removing & Refixing						297.00		
	Basic rate	105.00							
	Area weightage 6%	6.3							
	Sub Total	111.30							
	Total						297.00	111.30	33057.00

Sl No	Description of work	Mesurement				Qty	Rate	Amount
		Unit	No.	L	B			
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing etc., complete.(P.No.27,I.No.5.31.1)							
	Provide 20% new BS Slab for Missing/Damaged	Sqm	From item no.2			74.25		
	Basic rate	700.00						
	Area weightage 6%	42						
	Sub Total	742.00						
	Total					74.25	742.00	55094.00
4	KS RB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.13, I.No. 4.3)							
	For Drain							
	Simhadri Layout							
	1st Main 1st Cross Road	Cum	2	150.00	0.95	0.15	42.75	
	1st Main 2nd Cross Road	Cum	2	132.00	0.95	0.15	37.62	
	For Culvert							
	Simhadri Layout							
	1st Main 1st Cross Road	Cum	1	7.30	1.40	0.15	1.53	
	Basic rate	5475.28						
	Area weightage 6%	328.52						
	Sub Total	5803.80						
	Total					81.90	5803.80	475349.00
5	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs. With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering, cost of materials, HOM of Machinery, Curing Etc., Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm(Item No 37.59.2 page no 271)							
	Drain							
	Bottom Raft	Cum						
	Simhadri Layout							
	1st Main 1st Cross	Cum	2	150.00	0.75	0.15	33.75	
	1st Main 2nd Cross	Cum	2	132.00	0.75	0.15	29.70	
	Side Wall							
	Simhadri Layout							
	1st Main 1st Cross	Cum	4	150.00	0.15	0.60	54.00	
	1st Main 2nd Cross	Cum	4	132.00	0.15	0.60	47.52	
						Sub Total	164.97	
	Culvert							
	Bottom Raft							
	Simhadri Layout							
	1st Main 1st Cross	Cum	1	7.30	1.20	0.20	1.75	

Sl No	Description of work	Measurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
	Side Wall								
	Simhadri Layout								
	1st Main 1st Cross	Cum	2	7.30	0.20	0.60	1.75		
	Basic rate	7292.14							
	Area weightage 6%	437.53							
	Sub Total	7729.67							
	Total						168.47	7729.67	1302249.00
6	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2								
	For Drain	Cum	From Item No. 05				164.97		
		kg	Steel assumed 60Kg/Cum of Concrete				9898.20		
		tonne					9.90		
	For Culvert	Cum	From Item No. 05				3.50		
		kg	Steel assumed 90 Kg/Cum of Concrete				315.36		
		tonne					0.32		
	Basic rate	85468							
	Area weightage 6%	5128.08							
	Sub Total	90596.08							
	Total						10.21	90596.08	925309.00
7	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,complete. (Data Rate)								
	New Drain Cover slab								
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	2	150.00	0.75		225.00		
	1st Main 2nd Cross Road	Sqm	2	132.00	0.75		198.00		
	Data rate	1922.00							
	Total						423.00	1922.00	813006.00
8	Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge(Data Rate)								
	Culver cover Slab	Sqm							
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	1	7.30	1.20		8.76		
	Data rate	5418.00							
	Total						8.76	5418.00	47462.00

Sl No	Description of work		Measurement				Qty	Rate	Amount
		Unit	No.	L	B	D			
9	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specification MORTH Specification No.301 Loading and unloading with 5km lead= (I No-19.14,P No-143)								
	New Road								
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	1	150.00	5.40	0.38	307.80		
	Basic rate	41.00							
	Area weightage 6%	2.46							
	5Km lead= (2*1.28*5)	12.80							
	Sub Total	56.26							
	Total						307.80	56.26	17317.00
10	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Chapter 3(P.No.146, I.No.19.56)								
	Simhadri Layout	Sqm							
	1st Main 2nd Cross Road	Sqm	1	132.00	5.10		673.20		
	New Sai Garden								
	Main Road	Sqm	1	178.00	8.00		1424.00		
	1st Cross Road	Sqm	1	40.50	5.10		206.55		
	2nd Cross Road	Sqm	1	46.00	5.40		248.40		
	3rd Cross Road	Sqm	1	51.00	5.40		275.40		
	Basic rate	39.00							
	Area weightage 6%	2.34							
	Sub Total	41.34							
	Total						2827.55	41.34	116891.00
11	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occurring during rolling including cost of all labour, HOM complete as per specifications.(I No-19.64,P No-147)								
	for New Road	Sqm							
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	1	150.00	5.40		810.00		
	1st Main 2nd Cross Road	Sqm	1	132.00	5.10		673.20		
	New Sai Garden								
	Main Road	Sqm	1	178.00	8.00		1424.00		
	1st Cross Road	Sqm	1	40.50	5.10		206.55		
	2nd Cross Road	Sqm	1	46.00	5.40		248.40		
	3rd Cross Road	Sqm	1	51.00	5.40		275.40		
	Basic rate	6.00							
	Area weightage 6%	0.36							
	Sub Total	6.36							
	Total						3637.55	6.36	23135.00

No	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
2	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	For new Road								
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	1	150.00	5.40	0.15	121.50		
	Basic rate	1882.00							
	Area weightage 6%	112.92							
	Sub Total	1994.92							
	Total						121.50	1994.92	242383.00
3	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	For New Road	Cum							
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	1	150.00	5.40	0.23	186.30		
	1st Main 2nd Cross Road	Cum	1	132.00	5.10	0.23	154.84		
	New Sai Garden								
	Main Road	Cum	1	178.00	8.00	0.23	327.52		
	1st Cross Road	Cum	1	40.50	5.10	0.23	47.51		
	2nd Cross Road	Cum	1	46.00	5.40	0.23	57.13		
	3rd Cross Road	Cum	1	51.00	5.40	0.23	63.34		
	Basic rate	1888.00							
	Area weightage 6%	113.28							
	Sub Total	2001.28							
	Total						836.64	2001.28	1674344.00
4	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	New Road								
	Simhadri Layout								
	1st Main 1st Cross Road	Sqm	1	150.00	5.40		810.00		
	1st Main 2nd Cross Road	Sqm	1	132.00	5.10		673.20		
	New Sai Garden								
	Main Road	Sqm	1	178.00	8.00		1424.00		
	1st Cross Road	Sqm	1	40.50	5.10		206.55		
	2nd Cross Road	Sqm	1	46.00	5.40		248.40		
	3rd Cross Road	Sqm	1	51.00	5.40		275.40		
	Basic rate	32.00							
	Area weightage 6%	1.92							
	Sub Total	33.92							
	Total						3637.55	33.92	123386.00

Sl No	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
15	KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by smooth wheeled, vibratory & tandem rollers to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.4 % VG-30 Bitumen(P.No.159,I.No.21.11.6).								
	New Road								
	Simhadri Layout								
	1st Main 1st Cross Road	Cum	1	150.00	5.40	0.05	40.50		
	1st Main 2nd Cross Road	Cum	1	132.00	5.10	0.05	33.66		
	New Sai Garden								
	Main Road	Cum	1	178.00	8.00	0.05	71.20		
	1st Cross Road	Cum	1	40.50	5.10	0.05	10.33		
	2nd Cross Road	Cum	1	46.00	5.40	0.05	12.42		
	3rd Cross Road	Cum	1	51.00	5.40	0.05	13.77		
	Basic rate	6384.00							
	Area weightage 6%	383.04							
	Sub Total	6767.04							
	Total						181.88	6767.04	1230773.00
16	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	Simhadri Layout	Sqm							
	1st Main 1st Cross Road	Sqm	1	150.00	5.40		810.00		
	1st Main 2nd Cross Road	Sqm	1	132.00	5.10		673.20		
	New Sai Garden								
	Main Road	Sqm	1	178.00	8.00		1424.00		
	1st Cross Road	Sqm	1	40.50	5.10		206.55		
	2nd Cross Road	Sqm	1	46.00	5.40		248.40		
	3rd Cross Road	Sqm	1	51.00	5.40		275.40		
	Basic rate	12.00							
	Area weightage 6%	0.72							
	Sub Total	12.72							
	Total						3637.55	12.72	46270.00
17	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4% VG-30 Bitumen(P.No-162,I No-21.22.6)								
	Simhadri Layout	Cum							
	1st Main 1st Cross Road	Cum	1	150.00	5.40	0.04	32.40		
	1st Main 2nd Cross Road	Cum	1	132.00	5.10	0.04	26.93		
	New Sai Garden						0.00		
	Main Road	Cum	1	178.00	8.00	0.04	56.96		

Sl No	Description of work	Measurement					Qty	Rate	Amount
		Unit	No.	L	B	D			
	1st Cross Road	Cum	1	40.50	5.10	0.04	8.26		
	2nd Cross Road	Cum	1	46.00	5.40	0.04	9.94		
	3rd Cross Road	Cum	1	51.00	5.40	0.04	11.02		
	Basic rate	9435.00							
	Area weightage 6%	566.10							
	Sub Total	10001.10							
	Total						145.50	10001.10	1455181.00

18 KSRRB M800-13. Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)

Simhadri Layout	Sqm								
1st Main 1st Cross Road	Sqm	2	150.00	0.10			30.00		
1st Main 2nd Cross Road	Sqm	2	132.00	0.10			26.40		
New Sai Garden									
Main Road	Sqm	2	178.00	0.10			35.60		
1st Cross Road	Sqm	2	40.50	0.10			8.10		
2nd Cross Road	Sqm	2	46.00	0.10			9.20		
3rd Cross Road	Sqm	2	51.00	0.10			10.20		
Basic rate	429.00								
Area weightage 6%	25.74								
Sub Total	454.74								
Total							119.50	454.74	54342.00

Administrative Approval

Grand Total 8749234.00

Accorded For Rs 1.00 Lakhs GST Charges (12% of estimated cost) 1049909.00

Head of A/C DPR Charges (1% of estimated cost) 100000.00

CER NO: 48 Project management And Consultancy Charges (1% of estimated cost) 100000.00

Miscellenious and rounding 857.00

Total Amount 10000000.00

RUPEES CRORE ONLY

CERTIFICATE:

- 1) The work spot has been inspected and found to be necessary
- 2) The work spot comes under B.B.M.P
- 3) The provisions made in the estimate are necessary and minimum
- 4) The estimate is based on C.S.R of 2018-2019, Issue rates and Data Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP
Adyarapura Sub Division
BBMP, Bangalore - 97

Executive Engineer
BBMP



Technical Sanction
Accorded For Rs 100.00 Lakhs
Head of A/C
CER NO: 59 DEL 22.10.2021